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Agricultural Memorandum No 394 (a)

Estimation of Average Annual Potential Transpiration During Growing Season for England and Wales

R P Rumney and L P Smith

Average annual potential transpiration figures were calculated for about 700 stations covering England and Wales. These were calculated by applying two correction factors to the county averages. The length of growing season was adjusted from the average county height to the station height (in ft above sea level) as given in Ag Mem No 125, and potential transpiration was calculated over this period only. A further correction was made in the potential transpiration values of 0.3 inch per 100 ft departure from average county height for each station.

The station values were then plotted in map form and isopleths drawn. In the hill areas of Wales and Northern England it was not considered meaningful to draw isopleths for values below 16 inches due to the large variations in height and poor distribution of stations.

G.13535/JB/8/71/

Agricultural Memorandum No 394 (b)

Calculation of Average Maximum Actual Soil Moisture Deficit by Method Given in Ag Mem 388.

R P Rumney and L P Smith

Estimates of the average maximum actual soil moisture deficit were made for about 700 stations covering England and Wales (see Ag Mem No 388). These were then plotted in map form and isopleths drawn.

G.13535/JB/8/71/

Agricultural Memorandum No 394 (c)

Estimation of Mean Excess Winter Rainfall for England and Wales

R P Rumney and L P Smith

Values of mean excess winter rainfall were estimated for some 700 stations in England and Wales for which long term average annual rainfall values exist.

These were estimated using the regional regression equation for mean excess winter rain and average annual rainfall given in Ag Memo No 264.

NORTH	0.8R - 12.4	
MIDLANDS	0.83R - 13.5	
SOUTHWEST	0.82R - 13.6	
SOUTHEAST	0.77R - 12.6	
EAST	0.62R - 8.8	
WALES	0.90R - 16.1	where R = average annual rainfall.

These values were then plotted and a map was produced for England and Wales.

For high rainfall area (over 40" average annual rainfall) values were calculated for each station individually, adjusting the county value of potential transpiration to the station height.

When fitting isopleths to the map showing station values, 50 inches excess winter rain was taken as corresponding approximately to an average annual rainfall of 70 inches.

Any comments or criticism on this memorandum should be sent to the author.

Meteorological Office
Bracknell
August 1971

G.13535/JB/8/71/

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
SURREY				
Dormans Park (Chartham Park)	TQ(51) 382407	12.3	19.4	4.1
Addington Hills Res.	TQ(51) 352643	9.7	18.5	4.2
Chelsham and Woldingham W.W.	TQ(51) 386552	12.9	18.5	
Croydon Airport	TQ(51) 312633	8.4	19.7	4.3
Ranmore (Denbies)	TQ(51) 148505	13.9	17.7	3.9
Reigate (Wray Park Road)	TQ(51) 262511	11.6	19.1	4.1
Epsom (Sewage Farm)	TQ(51) 207620	6.8	20.1	4.4
Surbiton (Seething Wells)	TQ(51) 172671	6.4	20.5	4.3
Raynes Park (Cottenham Park Pumping Station)	TQ(51) 237695	6.2	20.5	4.4
Kew Observatory	TQ(51) 171757	5.8	20.6	4.4
Hascombe (Olivers)	TQ(51) 005395	12.8	18.9	4.0
Shere (Manor House)	TQ(51) 068483	11.6	19.1	4.0
Byfleet (Wisley RHS Gardens)	TQ(51) 063583	7.4	20.0	4.3
Weybridge (Oil Mills)	TQ(51) 073655	6.1	20.5	4.5
Chobham (West End)	SU(41) 950612	8.4	20.0	4.3
KENT				
Dungeness Lighthouse	TR(61) 094169	6.7	20.9	4.5
Tenterden (Ashenden)	TQ(51) 894314	9.5	20.1	4.2
Hythe	TR(61) 163345	9.1	20.9	4.3
Folkestone (Cherry Gdn)	TR(61) 211381	11.1	20.0	4.0
Ashford	TR(61) 013430	10.4	20.1	4.1
Worth (Upton House)	TR(61) 333558	9.0	20.8	4.3
Wingham (Margate W.W.)	TR(61) 244553	9.0	20.3	4.3
Canterbury (Sewage Works)	TR(61) 166596	8.3	20.9	4.3
Margate	TR(61) 368714	3.8	20.8	4.7
Teynham (Newgardens)	TQ(51) 954630	5.7	20.8	4.5
Herne Bay (Waterworks)	TR(61) 186679	4.6	20.3	4.6
Goudhurst (Bedgebury Park Gardens)	TQ(51) 717341	12.9	19.7	3.9
Tunbridge Wells (Calverley Park)	TQ(51) 588392	10.7	19.3	4.1
Edenbridge (Falconhurst)	TQ(51) 470427	12.2	19.2	3.9
Hildenborough (Gailes)	TQ(51) 572488	9.2	20.2	4.1
Maidstone (Brenchley Gardens)	TQ(51) 759561	7.9	20.8	4.2
East Malling (Research Stn)	TQ(51) 711568	8.1	20.4	4.2
Strood (Waterworks)	TQ(51) 730693	6.1	20.5	4.4
Seal (Kemsing Pumping Stn)	TQ(51) 569576	10.2	19.6	4.1
Sevenoaks (Chevening Gdns)	TQ(51) 486578	12.5	19.4	4.1
Orpington (Kent W.W.)	TQ(51) 459652	8.8	20.0	4.3

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
KENT (continued)				
Southfleet (Kent W.W.)	TQ(51) 610724	5.4	20.6	4.5
Erith (Crossness)	TQ(51) 485809	3.6	20.9	4.6
SUSSEX				
Bognor Regis (Albert Road)	SZ(40) 936992	8.9	20.5	4.3
West Dean Park	SU(41) 864127	16.3	19.7	3.5
Compton (Compton House)	SU(41) 773150	16.6	19.4	3.4
Petworth Park Gardens	SU(41) 975217	14.1	19.4	3.9
Lower Beeding (The Warren)	TQ(51) 242290	13.1	18.7	3.8
Horsham (Wimblehurst)	TQ(51) 179320	11.3	19.7	4.0
Worthing (Beach Hse Pk)	TQ(51) 153029	8.6	20.5	4.4
Brighton W.W. (Mile Oak)	TQ(51) 243079	11.7	19.8	4.0
Seaford	TV(50) 486990	9.5	20.4	4.2
Lewes W.W. (Kingston)	TQ(51) 407092	15.4	20.6	3.6
Eastbourne (Wilmington Sq)	TV(50) 611980	11.1	20.5	4.2
Willingdon Sewage Farm	TQ(51) 600036	12.7	20.5	4.1
Hastings (Newgate)	TQ(51) 807102	9.8	19.5	4.2
Horam (Coxlow)	TQ(51) 575168	11.4	19.4	4.1
Udimore (The Wick)	TQ(51) 886194	10.7	20.2	4.1
Crowborough (Jarvis Brook)	TQ(51) 540297	15.9	19.1	3.5
Frant (Henley Gardens)	TQ(51) 597342	13.7	18.6	3.8
Worth (Worth Lodge)	TQ(51) 307364	13.5	19.0	3.7
HAMPSHIRE				
St Catherine's Point (Coastguard Stn)	SZ(40) 506755	10.4	21.5	4.4
Totland Bay (Aston House)	SZ(40) 325864	10.1	21.1	4.3
Ryde (Esplanade Gdns)	SZ(40) 595929	10.7	21.7	4.4
Ringwood (Bisterne)	SU(41) 151006	13.3	20.4	4.1
Fordingbridge (Dockens)	SU(41) 196109	12.9	19.9	4.1
Southampton (East Park)	SU(41) 419119	12.1	20.3	4.0
Romsey (Timsbury P Stn)	SU(41) 346255	11.7	20.1	4.0
Andover (Sewage Works)	SU(41) 339447	10.4	19.8	4.1
Portsmouth (Southsea Cm'n)	SZ(40) 640990	9.0	20.6	4.4
Havant (Portsmouth W.W.)	SU(41) 711063	9.4	20.5	4.3
Soberton (Mislingford)	SU(41) 596142	13.0	19.9	3.8
Otterbourne (Waterworks)	SU(41) 465235	10.4	20.0	3.9
Itchen Abbas (Chilland)	SU(41) 526328	12.0	19.7	3.5
Selborne (The Wakes)	SU(41) 740336	17.2	18.8	3.4
Sherborne St John	SU(41) 619558	10.0	19.4	4.0

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
HAMPSHIRE (continued)				
South Farnborough (RAE)	SU(41) 867544	8.4	19.6	4.0
Heckfield (Park Corner)	SU(41) 715627	7.8	19.4	4.0
BERKSHIRE				
Wellington College	SU(41) 833635	8.4	19.2	3.9
Windsor (Royal Gardens)	SU(41) 979754	7.3	20.2	4.0
Bucklebury Place	SU(41) 563682	7.7	18.7	4.1
Reading University	SU(41) 738748	7.2	19.9	4.1
Wallingford (Style Acre)	SU(41) 589909	7.1	19.6	4.1
Abingdon (Sewage Works)	SU(41) 496959	5.7	19.8	4.2
HERTFORDSHIRE				
Totteridge (West Lodge)	TQ(51) 233940	8.4	18.7	4.0
Hemel Hempstead (Apsley Mills)	TL(52) 065049	9.6	19.3	3.9
Tring (Cowroast Lock)	SP(42) 957104	10.2	18.7	3.8
Harpenden (Rothamsted)	TL(52) 132134	7.9	18.6	4.1
Cheshunt (Darnicle Hill Pumping Stn)	TL(52) 309048	7.8	19.4	4.1
Hoddesdon (Feilde's Weir)	TL(52) 392092	6.0	20.0	4.2
Hertford (Sewage Works)	TL(52) 338134	6.3	19.9	4.2
Welwyn (Codicote Lodge)	TL(52) 214183	7.1	19.0	4.2
Hitchin (Preston)	TL(52) 180240	7.2	18.3	4.1
Royston (Earls Hill House)	TL(52) 355407	6.1	19.5	4.1
BUCKINGHAMSHIRE				
Slough (Upton)	SU(41) 978791	7.2	20.1	4.1
Penn (Rayners)	SU(41) 905935	11.5	17.9	3.6
Hampden House	SP(42) 848024	10.4	17.2	3.7
Oving House	SP(42) 788212	8.7	18.1	3.7
Buckingham (Market Hill)	SP(42) 697335	7.5	19.0	4.0
Turvey (Brayfield House)	SP(42) 928520	6.7	19.6	4.1
OXFORDSHIRE				
Wootton Rectory	SP(42) 440199	9.1	18.8	3.7
Chipping Norton (Bungalow)	SP(42) 313266	10.3	17.0	3.4

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
OXFORDSHIRE (continued)				
Oxford (Radcliffe Met Stn)	SP(42) 509072	7.5	19.6	4.0
Steeple Aston (The Grange)	SP(42) 474262	9.4	18.7	3.7
West Adderbury (Cross Hill)	SP(42) 466356	7.9	18.9	4.0
Henley on Thames (Grey's Lane)	SU(41) 761824	8.1	20.0	3.9
Watlington (Pyrton Manor)	SU(41) 685956	8.5	19.0	3.8
NORTHAMPTONSHIRE				
Hargrave Hall	TL(52) 035705	6.1	18.9	4.1
Northampton (General Hpl)	SP(42) 762604	7.0	19.0	4.1
Daventry (Tunnel End)	SP(42) 576651	7.8	18.3	4.0
Wellingborough (Swansp'l)	SP(42) 894675	6.9	19.4	4.0
Ravensthorpe	SP(42) 682704	7.6	18.7	4.0
Kettering (Sewage Works)	SP(42) 872764	6.8	19.3	4.1
Rothwell (Shotwell Mill Waterworks)	SP(42) 816826	6.5	18.6	4.2
Peterborough (Abbeyf'lds)	TF(53) 200000	4.9	20.0	4.2
HUNTINGDONSHIRE				
Hemingford Grey	TL(52) 301708	4.3	19.8	4.4
BEDFORDSHIRE				
Luton (Wardown Park)	TL(52) 089231	7.0	18.6	4.1
Meppershall (High Street)	TL(52) 137362	5.5	19.2	4.1
Woburn (Experimental Fm)	SP(42) 964358	6.8	19.0	4.0
Bedford (Castle Road)	TL(52) 057498	5.2	19.8	4.3
Great Barford House	TL(52) 137533	4.9	19.7	4.3
CAMBRIDGESHIRE				
Ashwell (Odsey)	TL(52) 293383	5.6	18.7	4.2
Cambridge (Botanic Gdns)	TL(52) 453572	4.7	19.8	4.3
Cottenham (Bernard House)	TL(52) 452678	5.3	19.8	4.3
Littleport (Highfield House)	TL(52) 564864	4.1	19.7	4.4
March	TL(52) 420967	5.5	20.0	4.2
Stanground Sluice	TL(52) 209973	4.7	19.9	4.3
Parsons Drove (Clows Cross)	TF(53) 369094	4.4	20.0	4.3

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
ESSEX				
Lea Bridge (Waterworks)	TQ(51) 359867	5.5	20.7	4.3
Chingford Mill	TQ(51) 363925	5.8	20.6	4.2
Loughton (High Beech Res.)	TQ(51) 410980	7.6	19.0	4.0
Waltham Abbey (Rammey Marsh)	TQ(51) 376993	6.0	20.5	4.2
Hatfield Broad Oak	TL(52) 553177	6.8	19.4	4.1
East Ham (Central Park)	TQ(51) 425831	5.6	20.5	4.2
Southend (Waterworks)	TQ(51) 874853	4.3	20.2	4.5
Vange (Pumping Stn)	TQ(51) 709860	4.2	20.6	4.5
North Weald (Canes)	TL(52) 484063	6.9	19.6	4.1
Ingatestone (Fryerning)	TL(52) 639002	6.2	19.4	4.2
Witham (Faulkbourne Hall)	TL(52) 803165	5.2	20.3	4.5
Great Bardfield (South Lo.)	TL(52) 674304	5.8	19.6	4.4
Clacton on Sea	TM(62) 173143	4.6	20.5	4.6
Lexdon (Hill House)	TL(52) 970251	5.1	20.3	4.6
Halstead (The Brewery)	TL(52) 812302	6.0	20.1	4.4
Great Yeldham Hall	TL(52) 760385	5.7	20.4	4.4
Mistley (The Maltings)	TM(62) 108318	4.9	20.7	4.6
SUFFOLK				
Campsea Ashe (High House)	TM(62) 339560	5.7	20.0	4.3
Charsfield (Red House)	TM(62) 243567	6.4	19.6	4.2
Lowestoft (Secondary Sch)	TM(62) 543947	5.8	19.9	4.4
Lound (Pumping Stn)	TG(63) 501008	6.1	20.1	4.3
Newmarket (Sewage Outfall)	TL(52) 635648	5.8	19.9	4.2
Bury St. Edmunds (Westley Hall)	TL(52) 825647	7.4	19.3	3.9
Barningham (The Beeches)	TL(52) 967768	5.7	19.6	4.2
NORFOLK				
Beccles (Raveningham Hall)	TM(62) 399966	6.9	19.7	4.2
Gorleston (Coastguard Stn)	TG(63) 534037	6.0	20.0	4.4
Norwich (City Cemetery)	TG(63) 212086	7.1	19.5	4.2
Cawston (New Street)	TG(63) 134238	8.1	19.2	4.1
Hevingham (Rippin Hall)	TG(63) 210225	7.9	19.5	4.1
Sandringham House Gardens	TF(53) 695288	8.1	19.4	3.9

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
ESSEX				
Lea Bridge (Waterworks)	TQ(51) 359867	5.5	20.7	4.3
Chingford Mill	TQ(51) 363925	5.8	20.6	4.2
Loughton (High Beech Res.)	TQ(51) 410980	7.6	19.0	4.0
Waltham Abbey (Rammey Marsh)	TQ(51) 376993	6.0	20.5	4.2
Hatfield Broad Oak	TL(52) 553177	6.8	19.4	4.1
East Ham (Central Park)	TQ(51) 425831	5.6	20.5	4.2
Southend (Waterworks)	TQ(51) 874853	4.3	20.2	4.5
Vange (Pumping Stn)	TQ(51) 709860	4.2	20.6	4.5
North Weald (Canes)	TL(52) 484063	6.9	19.6	4.1
Ingatestone (Fryerning)	TL(52) 639002	6.2	19.4	4.2
Witham (Faulkbourne Hall)	TL(52) 803165	5.2	20.3	4.5
Great Bardfield (South Lo.)	TL(52) 674304	5.8	19.6	4.4
Clacton on Sea	TM(62) 173143	4.6	20.5	4.6
Lexdon (Hill House)	TL(52) 970251	5.1	20.3	4.6
Halstead (The Brewery)	TL(52) 812302	6.0	20.1	4.4
Great Yeldham Hall	TL(52) 760385	5.7	20.4	4.4
Mistley (The Maltings)	TM(62) 108318	4.9	20.7	4.6
SUFFOLK				
Campsea Ashe (High House)	TM(62) 339560	5.7	20.0	4.3
Charsfield (Red House)	TM(62) 243567	6.4	19.6	4.2
Lowestoft (Secondary Sch)	TM(62) 543947	5.8	19.9	4.4
Lound (Pumping Stn)	TG(63) 501008	6.1	20.1	4.3
Newmarket (Sewage Outfall)	TL(52) 635648	5.8	19.9	4.2
Bury St. Edmunds (Westley Hall)	TL(52) 825647	7.4	19.3	3.9
Barningham (The Beeches)	TL(52) 967768	5.7	19.6	4.2
NORFOLK				
Beccles (Raveningham Hall)	TM(62) 399966	6.9	19.7	4.2
Gorleston (Coastguard Stn)	TG(63) 534037	6.0	20.0	4.4
Norwich (City Cemetery)	TG(63) 212086	7.1	19.5	4.2
Cawston (New Street)	TG(63) 134238	8.1	19.2	4.1
Hevingham (Rippin Hall)	TG(63) 210225	7.9	19.5	4.1
Sandringham House Gardens	TF(53) 695288	8.1	19.4	3.9

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
NORFOLK (continued)				
Cromer (Northrepps Hall)	TG(63) 232399	7.6	19.1	4.2
Thetford (Waterworks)	TL(52) 864846	6.4	19.2	4.1
WILTSHIRE				
Market Lavington (School House)	SU(41) 016543	10.6	19.5	3.9
Holt (The Elms)	ST(31) 866620	11.8	20.1	3.7
Chippenham (Kington L'ley)	ST(31) 929770	13.0	20.0	3.4
Stourhead	ST(31) 778341	18.7	18.2	2.9
Fonthill House Gdns	ST(31) 926323	18.5	19.1	3.1
Salisbury (Sewage Works)	SU(41) 149293	11.0	20.1	4.0
Bishops Cannings	SU(41) 043644	12.3	18.9	3.5
Landford (Northlands)	SU(41) 251208	12.8	20.0	3.9
Marlborough College	SU(41) 185686	13.9	19.0	3.6
Chiseldon (Hodson House)	SU(41) 173805	11.5	18.3	3.6
DORSET				
Weymouth (Westham)	SY(30) 676791	11.0	20.8	4.3
Creech Grange	SY(30) 911823	17.2	20.0	3.7
Abbotsbury (West Street)	SY(30) 578852	12.7	20.3	4.0
Wareham (Binnegar Hall)	SY(30) 884871	15.0	20.6	4.0
Dorchester (Waterworks)	SY(30) 684905	18.1	19.6	3.6
Lyme Regis (Horn Bridge)	SY(30) 338927	15.8	20.6	3.7
Beaminster (East Street)	ST(31) 482011	19.3	20.2	3.3
Wimborne (Corfe Mullen Waterworks)	SY(30) 973981	14.1	20.6	4.0
Holwell (Little Westrow)	ST(31) 699107	14.4	19.9	3.9
Wimborne St. Giles (St.G.Ho.)	SU(41) 032116	15.0	20.3	3.9
S. DEVONSHIRE				
Plymouth (The Hoe	SX(20) 478537	17.4	20.8	3.5
Bickleigh (Roborough Res.)	SX(20) 504630	30	19.4	2.1
Sheepstor (Redstone)	SX(20) 558682	43	18.0	1.6
Ashwater Rectory	SX(20) 386953	23.3	18.9	2.7
South Brent (Beechfield)	SX(20) 694607	45	19.1	1.6
Princetown (H.M. Prison)	SX(20) 536741	70	15.3	0.3
Torquay (Abbey Park)	SX(20) 909638	15.1	21.2	3.9
Teignmouth (Den Gdns)	SX(20) 941728	13.6	21.2	3.9
Christow (Kennick)	SX(20) 807838	22.8	17.6	2.9
Exmouth (Filters, Capel La.)	SY(30) 027819	12.6	20.3	3.5

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
S DEVONSHIRE (continued)				
Exeter (Devon & Exeter Ins)	SX(20) 922925	12.6	20.7	-
Copplestone (Coplestone Ho)	SS(21) 771020	15.9	20.0	-
Cullompton	ST(31) 020073	16.8	20.5	-
Stockland	ST(31) 247043	21.7	19.9	-
N DEVONSHIRE				
Ilfracombe (Bowling Green)	SS(21) 520478	17.8	21.2	3.1
Witheridge	SS(21) 803145	19.9	18.7	2.6
Barnstaple (Westway)	SS(21) 561348	19.4	20.7	2.9
Challacombe	SS(21) 639410	46	17.6	1.3
Okehampton (Uplands)	SX(20) 587945	35	18.3	1.9
Parkham (Melbury Res)	SS(21) 386201	35	19.0	1.9
CORNWALL				
Newquay (Mount Wise)	SW(10) 812614	14.4	21.3	3.7
Bodmin (Castle Hill House)	SX(20) 077674	28	19.9	2.4
Camelford St'non Cly Wks.)	SX(20) 128809	40	18.3	1.5
Penzance (Morrab Gdns)	SW(10) 473300	20.5	21.9	3.4
Falmouth Observatory	SW(10) 802325	21.9	21.5	3.2
Truro (Tregolls)	SW(10) 827450	21.6	21.8	3.2
St. Austell (Trevarna)	SX(20) 018525	26.5	20.8	2.6
Liskeard (Penmilder)	SX(20) 242636	28	21.0	2.5
Launceston (Landue)	SX(20) 351797	22.9	21.1	3.0
Scilly, St Mary's (Coastguard Stn)	SV(00) 913120	13.2	21.4	-
SOMERSET				
Frome Waterworks (Egford)	ST(31) 756480	16.9	19.6	3.0
Stratton on Fosse (Downside Abbey)	ST(31) 656507	21.4	18.0	2.0
Chew Magna	ST(31) 569632	16.9	20.0	2.9
Bath (Henrietta Park)	ST(31) 754653	11.8	20.5	3.6
Long Ashton (Res'ch Stn)	ST(31) 533698	16.1	20.1	3.0
Street (Millfield)	ST(31) 492363	11.1	20.4	3.4
Shepton Mallet (Charlton)	ST(31) 630433	18.9	18.6	2.4
Burnham	ST(31) 306494	11.0	20.7	3.6
Winscombe (Wintrath)	ST(31) 435577	17.1	19.5	2.9
Weston super Mare (Cl. Pk.)	ST(31) 318602	13.0	20.7	3.4
Clevedon Waterworks	ST(31) 425715	13.2	20.6	3.7
Crewkerne (The Reservoir)	ST(31) 437086	14.9	18.9	3.9

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
SOMERSET (continued)				
Yeovil (Pen Mill Sew Wks)	ST(31) 572162	13.3	20.4	3.6
Taunton (Vivary Park)	ST(31) 228238	10.4	20.5	4.0
Wiveliscombe (Culverhead)	ST(31) 075274	20.0	18.9	3.2
Dunster (County School)	SS(21) 989437	15.2	20.1	3.8
Brushford Nurseries	SS(21) 925258	24.0	18.8	2.9
Temple Combe Rectory	ST(31) 708228	15.9	19.7	3.2
GLOUCESTERSHIRE				
Tewkesbury (Forth'ton Ct.)	SO(32) 870318	8.8	20.3	3.9
Thornbury (Thornbury Pk.)	ST(31) 634908	13.5	20.2	3.3
Berkeley Castle Gdns	ST(31) 685990	12.9	20.2	3.4
Whitminster (The Junction)	SO(32) 775085	12.0	20.3	3.5
Witcombe Reservoir	SO(32) 903147	10.6	19.2	3.7
Cheltenham (Sandford Mill)	SO(32) 953216	9.2	19.6	3.9
Bristol (Hopewell Hill)	ST(31) 643742	12.8	18.8	3.4
Lechlade (St John's Lock)	SU(41) 222991	8.3	19.4	4.0
Cirencester (Somerford Rd.)	SP(42) 022009	13.2	18.9	3.4
Great Barrington	SP(42) 204135	11.2	18.6	3.9
Bourton on Water	SP(42) 166205	12.1	18.5	3.7
HEREFORDSHIRE				
Ross on Wye	SO(32) 598233	9.6	19.1	3.8
Vowchurch (Ladywell Ho.)	SO(32) 349362	16.3	18.3	3.5
Hereford (Breinton Court)	SO(32) 470396	8.4	19.0	4.1
Sarnesfield Grange	SO(32) 368509	10.7	18.4	3.9
Kimbolton (Grantsfield)	SO(32) 526603	10.0	18.2	3.8
SHROPSHIRE				
Whitchurch (Fenns Bank)	SJ(33) 512392	9.9	18.8	3.7
Bromfield (Oakley Park)	SO(32) 491762	11.7	18.7	3.5
Bishops Castle	SO(32) 324887	13.4	17.3	3.4
Church Stretton (Sew. Wks)	SO(32) 438909	15.8	17.4	2.9
Shrewsbury (Monkmoor)	SJ(33) 514138	7.9	19.2	3.9
Shifnal (Hatton Grange)	SJ(33) 764043	9.1	18.8	3.7

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
SHROPSHIRE (continued)				
Newport (Harper Adams)	SJ(33) 712204	8.2	19.1	3.9
STAFFORDSHIRE				
Kingswinford (Ashwood Pumping Station)	SO(32) 866878	8.9	18.8	3.8
Wolverhampton (West Park)	SO(32) 906990	10.1	17.8	3.3
Norbury Junction	SJ(33) 793228	10.3	18.2	3.3
Maer Hall Gardens	SJ(33) 794382	15.0	17.9	2.9
West Bromwich (Dmth. Pk.)	SP(42) 011915	10.2	17.2	3.3
Hammerwich (Cnk.Ch. Res.)	SK(43) 040074	10.2	17.5	3.4
Stafford (Vic. Pleasure Grd.)	SJ(33) 927229	11.2	18.6	3.3
Burton (Shobnall)	SK(43) 234231	9.7	19.0	3.9
Longton (The Meir)	SJ(33) 941418	13.8	16.8	2.9
Leek (Moorhill)	SJ(33) 998571	18.1	16.5	1.9
WORCESTERSHIRE				
Malvern (Free Library)	SO(32) 790461	11.0	18.4	3.5
Worcester (Diglis Lock)	SO(32) 847533	7.7	20.1	3.9
Ombersley (Holt Lock)	SO(32) 821634	7.6	20.0	3.9
Kidderminster (Park Hall)	SO(32) 864778	9.2	19.3	3.7
Evesham (Bengeworth)	SP(42) 048442	6.7	19.7	4.0
Redditch (Hewell Gdns)	SP(42) 000687	11.3	18.0	3.3
Dudley (Shaver's End)	SO(32) 933912	10.3	16.6	3.4
WARWICKSHIRE				
Stratford on Avon (Milcote)	SP(42) 184528	7.0	19.6	3.6
Bidford (Moor Hall)	SP(42) 088538	7.0	19.6	3.8
Leamington Spa (Pump Room Gardens)	SP(42) 316654	6.9	19.4	4.0
Coventry (City Hospital)	SP(42) 337792	8.5	19.0	3.7
Birmingham (Sparkhill)	SP(42) 102837	11.3	18.2	3.4
Minworth Groaves	SP(42) 165923	7.9	18.9	3.7
Sutton Coldfield (The Park)	SP(42) 116964	9.9	18.4	3.6
LEICESTERSHIRE				
Welford (The Reservoir)	SP(42) 645811	8.7	17.9	3.7
Market Harborough	SP(42) 726879	7.7	18.2	3.9
Wistow Hall Gdns	SP(42) 642957	7.7	18.4	3.8
Leicester (Towers Hospital)	SK(43) 623042	8.4	18.6	3.6

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
LEICESTERSHIRE (continued)				
Thornton Reservoir	SK(43) 473072	10.1	18.2	3.5
Melton Mowbray (White Lodge)	SK(43) 756187	7.2	18.8	3.9
Loughborough (Nan'n Res.)	SK(43) 508171	9.8	18.6	3.5
Prestwold Hall Gdns	SK(43) 579215	8.4	18.9	3.7
Waltham on the Wolds	SK(43) 804252	7.7	17.2	3.8
LINCOLNSHIRE				
Tydd (N.Level Sluice)	TF(53) 467131	6.1	19.5	4.1
Spalding (Pode Hole)	TF(53) 214219	6.0	19.5	4.1
Grantham (Saltersford Pumping Station)	SK(43) 926334	6.7	18.6	4.0
Boston (Black Sluice)	TF(53) 325428	6.3	19.5	4.1
Cranwell Airfield	TF(53) 003494	5.9	18.5	4.1
Carlton le Moorland	SK(43) 905580	6.5	19.5	4.0
Horncastle	TF(53) 251695	7.4	18.9	4.0
Lincoln (Skellingthorpe Hall)	SK(43) 930715	6.3	19.3	4.1
Hackthorn Hall	SK(43) 992825	6.5	19.0	4.0
Skegness (Marine Gdns)	TF(53) 569631	5.1	19.4	4.3
Brigg (Wrawby Road)	TA(54) 005074	6.5	19.4	3.8
Cleethorpes (King's Parade)	TA(54) 314079	5.8	19.4	4.0
Brocklesby Park	TA(54) 140113	8.1	19.2	3.6
Ferriby Sluice	SE(44) 976211	6.3	19.4	3.9
Gate Burton Hall	SK(43) 838831	5.8	19.0	3.9
Crowle (North Level P. Station)	SE(44) 749098	6.0	19.5	3.9
NOTTINGHAMSHIRE				
Nottingham (Strelley)	SK(43) 508418	8.9	17.4	3.7
Nottingham (The Castle)	SK(43) 568395	6.6	18.6	3.7
Daybrook (Red Hill Res)	SK(43) 581470	8.7	17.4	3.6
Sutton in Ashfield (Sew. Wks)	SK(43) 510595	10.5	17.1	3.5
Clipstone (Waterworks)	SK(43) 603643	7.7	18.4	3.9
Elkesley (Pumping Station)	SK(43) 664760	6.6	18.9	3.9
Worksop (Wigthorpe Hill)	SK(43) 594835	6.6	19.0	3.9
Scrooby	SK(43) 651908	6.1	19.2	4.0
DERBYSHIRE				
Glossop W.W. (Swineshaw)	SK(43) 044958	22.9	15.7	1.9
Etwall (Blakeley Lodge)	SK(43) 268304	8.0	18.6	3.6
Derby (Royal Infirmary)	SK(43) 357355	10.4	18.5	3.3
Whatstandwell (Meerbrook)	SK(43) 325555	14.5	18.3	3.1

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
DERBYSHIRE (continued)				
Clay Cross (Press Res.)	SK(43) 354657	13.7	15.4	2.8
Buxton (Terrace Slopes)	SK(43) 059738	31	14.3	1.7
Bamford (Engineer's Office)	SK(43) 202829	19.5	16.9	2.7
Derwent Dale (Howden Dam)	SK(43) 168924	33	15.2	1.9
Codnor Park	SK(43) 442517	11.9	18.3	3.3
Chesterfield (Lr. Linacre Reservoir)	SK(43) 338725	14.0	17.4	3.2
CHESHIRE				
Macclesfield (West Park)	SJ(33) 911741	16.7	17.5	2.1
Godley Reservoir	SJ(33) 967954	17.1	17.6	2.1
Arnfield Reservoir	SK(43) 012972	21.1	17.5	1.9
Nantwich (Dorfold Hall)	SJ(33) 634524	11.8	19.0	3.2
Middlewich (Bostock Hall)	SJ(33) 675684	11.9	19.1	3.2
Northwich (Winnington)	SJ(33) 643747	11.7	19.5	3.3
Hooton (Waterworks)	SJ(33) 351780	12.4	19.4	3.0
Birkenhead (Bidston Obsy)	SJ(33) 287897	10.6	18.9	3.4
Chester (Waterworks)	SJ(33) 421665	9.1	19.4	3.6
S. LANCAHSIRE				
Ormskirk (Springfield P. Station)	SD(34) 388046	15.8	19.8	2.9
Formby (Hightown)	SD(34) 294044	13.3	20.0	3.2
Liverpool (Queen's Drive)	SJ(33) 361950	15.6	19.5	2.9
Earlstown (Newton Cem.)	SJ(33) 558946	14.4	19.7	3.2
Leigh (Sewage Works)	SJ(33) 661993	15.1	19.8	3.0
Urmston (Sewage Works, Davyhulme)	SJ(33) 756962	14.5	19.8	3.1
Manchester (Whitworth Pk.)	SJ(33) 847958	14.6	19.5	2.9
Ashton under Lyne (Knott Hill Reservoir)	SD(34) 958014	21.3	17.0	1.9
Bolton (Heaton Reservoir)	SD(34) 687096	25.4	17.5	1.9
Newhey (Sewage Works)	SD(34) 933112	23.8	17.5	2.0
Bury (Gin Hall)	SD(34) 805144	25.6	17.7	2.5
Bolton W.W. (Entwistle)	SD(34) 724173	37	16.4	1.5
Norden (Far Knowl Farm)	SD(34) 852165	34	14.8	1.4
Haslingden (Holden Wood)	SD(34) 774223	38	16.6	1.5
Rawtenstall (Clowbridge Res.)	SD(34) 828278	37	15.2	1.4
Chorlton cum Hardy (Sew. Works)	SJ(33) 807931	13.1	19.6	3.2
CENTRAL LANCASHIRE				
Darwen (Earnsdale Res)	SD(34) 670220	33	16.4	1.7
Darwen (Bold Venture)	SD(34) 687216	33	16.3	1.7

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
CENTRAL LANCASHIRE (continued)				
Hutton	SD(34) 513268	17.0	19.7	2.8
Preston (Moor Park)	SD(34) 537311	19.2	19.6	2.5
Burnley (Swinden Lower)	SD(34) 885334	28	16.2	2.1
Padiham (Huntroyde)	SD(34) 786351	23.4	17.9	2.1
Stonyhurst College	SD(34) 692388	27	18.2	1.9
Spade Hill (Preston W.W.)	SD(34) 618373	22.3	18.2	2.2
Sabden (Churn Clough Res)	SD(34) 786382	28	16.0	1.7
Foulridge (Upper Res.)	SD(34) 893413	22.2	17.1	2.0
Wigan W.W. (Worthing'n)	SD(34) 580102	19.3	19.0	2.6
Horwich (Lower Rivington)	SD(34) 631126	20.6	17.9	2.2
Bamber bdge (Cuerdon Hill)	SD(34) 564239	17.9	19.0	2.7
Southport (Hesketh Park)	SD(34) 348183	14.5	19.9	3.3
NORTH LANCASHIRE				
Barrow in Furness (Sew. Wks.)	SD(34) 215688	20.4	20.0	2.7
Ulverston (Poaka Beck)	SD(34) 240782	33	17.5	1.7
Heysham Harbour	SD(34) 401600	18.0	19.9	2.8
Morecambe	SD(34) 431645	18.3	20.0	2.8
Hampson in Ellel	SD(34) 495541	19.7	19.4	2.5
Weeton Reservoir	SD(34) 395344	18.3	19.4	2.9
Blackpool (Stanley Park)	SD(34) 324361	15.7	19.8	3.3
St. Michael's on Wyre	SD(34) 459410	17.9	20.0	2.9
Garstang (Barnacre Res.)	SD(34) 528480	29	16.9	1.7
Wyresdale (Abbeys'd Res.)	SD(34) 563542	33	18.3	1.6
YORKSHIRE, WEST RIDING				
Sedbergh (Brigflatts)	SD(34) 642912	39	17.4	1.1
Slaidburn (Dunsop Houses)	SD(34) 654515	46	16.7	0.8
Settle (Gas Works)	SD(34) 816633	27	16.7	2.1
Sheffield Wwks. (Redmires Reservoir)	SK(43) 262857	25	13.5	2.2
Sheffield Wwks. (Crookes Reservoir)	SK(43) 330872	13.1	15.9	2.9
Loxley Valley (Broadcar)	SK(43) 223904	30	14.0	2.0
Rotherham (Thrybergh)	SK(43) 474961	7.9	18.0	3.5
Wortley (Service Reservoir)	SK(43) 308998	13.3	15.5	2.8
Langsett Moor (Border H'l)	SE(44) 177011	33	13.8	1.9
Wath upon Dearne (Chapel Street)	SE(44) 433004	7.1	18.0	3.7
Barnsley (Jordan Hill)	SE(44) 336069	9.1	16.7	3.4
Meltham (Brow Grains)	SE(44) 080105	33	13.5	1.8
Huddersfield (Oakes)	SE(44) 113177	17.7	15.2	2.7
Soyland Moor (Greystones)	SE(44) 002179	37	13.0	1.5
Wakefield (Clarence Park	SE(44) 327199	8.7	18.3	3.4

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
YORKSHIRE, WEST RIDING (continued)				
Walsden (Ramsden Res.)	SD(34) 915214	37	14.0	1.4
Batley (Staincliffe Res.)	SE(44) 229236	9.5	16.5	3.1
Halifax Wwks. (Albert Res.)	SE(44) 074256	18.5	15.0	2.3
Bradford (Stubden Res.)	SE(44) 057332	31	13.7	2.0
Bradford (Heaton Res.)	SE(44) 145354	14.9	16.3	2.8
Leeds (Wortley Res.)	SE(44) 267326	10.2	17.4	3.2
Leeds (Weetwood)	SE(44) 271371	11.1	17.3	3.1
Skipton (Town Hall)	SD(34) 991518	15.9	17.1	2.8
Ilkley (Spence's Garden)	SE(44) 113476	17.8	17.3	2.7
Burnsall (Sandbed Beck)	SE(44) 019614	23.5	15.6	2.0
Oughtershaw Hall	SD(34) 869814	53	13.4	0.8
Spofforth (Sewage Works)	SE(44) 377521	11.1	18.1	3.0
Harrogate (Bilton Sew. Wks.)	SE(44) 303579	12.6	17.9	2.9
Nidderdale (Rain Stang)	SE(44) 079758	35	12.7	1.7
Kirkby Malzeard	SE(44) 213722	18.8	16.1	2.6
YORKSHIRE, EAST RIDING				
Birdsall Gardens	SE(44) 815648	11.9	17.1	3.3
Rillington (Scampston Hall)	SE(44) 864757	10.3	18.0	3.4
Patrington (Rose Cottage)	TA(54) 312225	6.6	18.2	4.0
Hull (Pearson Park)	TA(54) 084302	7.9	18.4	3.8
Holme on Spalding Moor (Vicarage)	SE(44) 813382	8.6	18.3	3.4
Beverley (Hull Bridge)	TA(54) 054417	8.2	18.4	3.7
Market Weighton (Dalton Holme)	SE(44) 963453	10.4	17.9	3.3
Bridlington (Corpn. Nurs.).	TA(54) 173675	9.6	18.2	3.7
YORKSHIRE, NORTH RIDING				
West Tanfield Rectory	SE(44) 267787	11.7	17.6	3.1
Masham Moor (Breary Bk.)	SE(44) 158802	19.0	15.5	2.5
Leyburn (Bolton Hall)	SE(44) 075897	15.5	16.3	3.0
Dalton Parsonage	SE(44) 429765	7.9	18.1	3.5
Coxwold (The Old Hall)	SE(44) 534773	10.7	17.1	3.1
Felixkirk (Mt.St.John)	SE(44) 474848	10.7	15.8	2.9
Maunby Hall	SE(44) 355883	8.7	18.0	3.4
Swaledale (Gunnerside Lo.)	SD(34) 934982	31	14.0	1.8
East Harlsey (Harlsey Hall)	SE(44) 428996	9.0	16.6	3.2
York (Museum)	SE(44) 598522	7.4	18.2	3.5
Kirkby M'side (Ravenswyke)	SE(44) 706873	11.1	17.1	3.2

Station	National Grid Reference	Mean Excess Winter Rainfall	Average Annual Potential Transpiration During Growing Season	Average Maximum Actual S.M.D.
YORKSHIRE, NORTH RIDING (continued)				
Scarborough	TA(54) 044884	8.1	17.8	3.6
Whitby (Park Hall, Aislaby)	NZ(45) 858087	12.0	15.9	2.9
Guisborough (Lockwood R.)	NZ(45) 668141	14.9	15.3	2.3
Kildale Hall	NZ(45) 611095	16.9	15.5	2.0
Crathorne Hall Gardens	NZ(45) 444087	8.1	17.5	3.4
Baldersdale (Hury Res.)	NY(35) 966192	17.3	14.2	2.9
DURHAM				
Darlington (South Park)	NZ(45) 285135	7.9	17.4	3.4
Barnard Castle (Bowes Mus.)	NZ(45) 055166	12.8	15.7	3.0
Stockton on Tees	NZ(45) 434182	6.5	17.8	3.7
Hurworth Burn Reservoir	NZ(45) 409333	8.4	16.4	3.4
Seaham (Dalton P. Stn.)	NZ(45) 409471	9.9	16.5	3.1
Durham (University Obsy.)	NZ(45) 267415	8.6	16.5	3.3
Weardale W.W. (Tunstall Reservoir)	NZ(45) 063407	15.2	14.6	2.6
Sunderland (Cleadon P. Station)	NZ(45) 387635	7.7	17.0	3.5
NORTHUMBERLAND				
Newcastle (Leazes Park)	NZ(45) 237651	9.8	16.5	3.1
Tynemouth (Tyne Pier Wks)	NZ(45) 373677	8.3	17.4	3.3
Whittle Dene Filters	NZ(45) 075675	9.9	16.0	3.0
Hallington (Fawcett)	NY(35) 965765	11.1	15.2	2.9
Redewater (Catcleugh)	NT(36) 749031	22.9	13.7	2.0
Morpeth (Cockle Park)	NZ(45) 201912	10.6	16.2	3.0
Font Reservoir	NZ(45) 049936	13.9	14.7	2.6
Howick Hall Gardens	NU(46) 247175	11.2	17.2	3.0
Chathill (Preston Tower)	NU(46) 185255	10.8	17.1	3.0
Ilderton (Lilburn)	NU(46) 023243	12.4	16.5	2.9
CUMBERLAND				
Penrith (Hutton John)	NY(35) 439270	31	15.1	2.4
Uldale (Chapel Ho. Res.)	NY(35) 260359	31	15.4	1.8
Geltsdale	NY(35) 573536	18.0	14.6	2.1
Wigton (Brookfield)	NY(35) 242478	14.9	17.8	2.9
Borrowdale (Seathwaite)	NY(35) 237119	116	16.3	0.0
Carlisle (Spital Cemetery)	NY(35) 390544	13.3	17.8	3.0
Wythburn	NY(35) 318138	86	15.5	0.0
Keswick (High Hill)	NY(35) 260238	42	17.1	1.7
Workington	NY(35) 022293	19.6	17.5	2.5
Ravenglass (The Grove)	SD(34) 088965	22.9	17.8	2.1

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CUMBERLAND (continued)				
Braystones	NY(35) 008058	20.8	18.1	2.4
WESTMORLAND				
Patterdale Hall	NY(35) 391163	74	16.5	0.5
Appleby (Castle Bank)	NY(35) 684198	16.8	16.8	2.5
Windermere (Brockhole)	NY(35) 389009	50	18.1	1.3
Rydal (High Close)	NY(35) 338052	69	16.2	0.8
Grasmere	NY(35) 337090	77	17.9	0.4
WALES				
MONMOUTHSHIRE				
Abertillery (The Park)	SO(32) 207049	36.7	17.8	1.7
Newport W.W. (Nantypridd)	ST(31) 436944	23.1	18.3	2.4
Newport W.W. (Newchurch)	ST(31) 437964	24.3	18.1	2.4
Abergavenny (Larchfield)	SO(32) 305143	18.6	19.5	3.3
Grwyne Fawr (Coed Dias)	SO(32) 275244	25.1	16.2	2.3
GLAMORGAN				
Penmaen (Cefn Mor)	SS(21) 530887	23.1	19.5	2.4
Ystalyfera (Wern House)	SN(22) 768088	49	19.7	0.8
Briton Ferry (Cefn Cwrt)	SS(21) 752940	30	18.6	1.7
Rhondda W.W. (Lyn Fawr Res.)	SN(22) 918033	76	15.0	0.0
Lower Penarth	ST(31) 183697	16.3	20.5	3.1
Merthyr Mawr	SS(21) 889779	24.9	20.4	2.3
Llanharan (Sewage Works)	SS(21) 974821	29	20.0	2.0
Treharris Service Reservoir	ST(31) 098975	37	17.3	1.8
Rhondda (Lluest Wen Res.)	SN(22) 950015	76	14.7	0.0
Treherbert (Tyn-y-waun)	SS(21) 932994	74	17.1	0.0
Cardiff (Penylan)	ST(31) 195793	21.8	19.9	2.5
CARMARTHENSHIRE				
Carmarthen (The Friary)	SN(22) 413202	31	20.5	2.1
Llandilo (Dynevor Castle)	SN(22) 614224	32	19.9	1.9
Llanddeusant (Pontcrynfe)	SN(22) 730242	37	19.4	1.7
Llyn-fan Fach (Nant Coch)	SN(22) 804232	65	15.2	0.4
Abergorlech	SN(22) 378541	40	19.7	1.4
Llandovery (Nantyrhogfaen)	SN(22) 753339	32	19.7	1.7
Llanelly (Cwmlliedi Waterworks)	SN(22) 518032	32	19.7	1.7

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PEMBROKESHIRE				
Pembroke (Stackpole Ct.)	SM(12) 977960	21.6	20.5	3.0
Tenby (The Priory)	SN(22) 135004	22.5	20.5	2.8
St. Ann's Head (Coastguard Station)	SM(12) 807032	16.3	20.2	3.4
Narberth (Bloomfield)	SN(22) 110151	29.4	19.6	2.0
Haverfordwest (Portfield)	SM(12) 919154	27	19.7	2.3
Maenclochog (Ddolwen Bridge)	SN(22) 069299	44	17.3	1.2
Fishguard (Langton, Durbach)	SM(12) 947330	26	19.4	2.3
CARDIGANSHIRE				
Llanafan (Crosswood Pk.)	SN(22) 671728	26	19.8	2.1
Cardigan (Plas Llangoedmore)	SN(22) 196460	21.3	20.2	2.8
Lampeter (Falcondale)	SN(22) 564490	32	18.5	1.9
Birmingham W.W. (Lyn Gynon)	SN(22) 802652	55	13.2	0.3
BRECON				
Taf Fechan (Pentwyn Res.)	SO(32) 056146	54	14.7	0.9
Cardiff W.W. (Cantref Res.)	SN(22) 995155	56	14.9	0.7
Cardiff W.W. (Beacons Res.)	SN(22) 987192	66	13.5	0.2
Taf Fechan (Neuadd Res.)	SO(32) 032184	70	12.9	0.2
Ebbw Vale W.W. (LLangynidr)	SO(32) 150141	52	13.0	1.1
Ebbw Vale W.W. (Carno, West)	SO(32) 156132	51	13.2	1.2
Black Mountains (Blaen-y-cwm)	SO(32) 246295	40	13.2	1.6
Battle (Penoyre)	SO(32) 016310	29	16.3	2.5
Black Mts. (The Dam, Grywne Fawr)	SO(32) 233307	43	12.2	1.0
Upper Chapel (Tymawr)	SO(32) 010410	31	14.6	2.2
Abergwesyn (Trallwm)	SN(22) 878541	62	15.3	0.5
Newbridge (Llysdinam)	SO(32) 009585	23.8	17.2	2.3
Birmingham W.W. (Corc-yr-hwch)	SN(22) 859600	77	11.4	0.0
Birmingham W.W. (Nant-y-car)	SN(22) 877617	74	12.6	0.2
RADNOR				
New Radnor (Harpton Court Gdns.)	SO(32) 234598	21.8	17.1	2.7

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RADNOR (continued)				
Birmingham W.W. (Esgair Gader)	SN(22) 859665	56	12.9	0.6
Birmingham W.W. (Figin)	SN(22) 828715	71	11.8	0.1
Llanbister (Llananno)	SO(32) 095745	29	16.0	2.0
MONTGOMERY				
Llanidloes (Mount Severn)	SN(22) 940840	33	17.5	2.0
Newtown (Penarth Weir)	SO(32) 136925	17.1	18.7	2.9
Welshpool County School	SJ(33) 228070	11.5	19.1	3.3
Berriew (Brithdir Hall)	SJ(33) 194026	13.3	18.6	3.2
Welshpool (Fron Llwyd)	SJ(33) 215077	15.3	17.9	3.1
Llanymynech (White Rock)	SJ(33) 254217	10.7	18.6	3.4
Lake Vyrnwy	SJ(33) 018189	45	16.6	1.4
Lake Vyrnwy (Llwynrhiw)	SH(23) 975207	67	13.2	0.2
FLINT				
Hanmer (Gredington)	SJ(33) 447386	11.3	18.5	3.4
Northop (Soughton Hall)	SJ(33) 246671	14.8	17.9	3.0
Overton (Fairleigh)	SJ(33) 375417	10.4	18.8	3.4
Bodfari (Nantlys)	SJ(33) 081711	10.6	19.0	3.4
DENBIGH				
Wrexham W.W. (Packdle Reservoir)	SJ(33) 305479	15.3	18.1	3.4
Ruabon (Trevor Hall)	SJ(33) 256424	16.5	17.6	3.1
Pentre Voelas (Nant Heilyn)	SH(23) 925554	37	14.0	1.8
Nantglyn (Pant-y-maen)	SH(23) 977587	39	13.5	1.8
Llyn Bran	SH(23) 960593	40	13.0	1.6
Denbigh (Mental Hosp)	SJ(33) 051653	13.8	18.4	3.5
Llannefydd (Dowlen Res., South)	SH(23) 972702	15.2	17.1	3.2
MERIONETH				
Llanuwchllyn (Plas-deon)	SH(23) 875302	48	18.2	1.3
Corwen (Bryntirion)	SJ(33) 066423	19.1	18.1	2.7
Blaenau Ffestiniog (Llechwedd Qu)	SH(23) 697468	92	17.5	0.0
Dolgellau (Borthwnog)	SH(23) 686190	39	20.6	1.1
Aberdovey (Plas Penhelig)	SN(22) 621693	24.1	20.0	2.2
Pennal (Talgarth Hall)	SN(22) 694998	42	20.1	1.0
CAERNARVON				
Llandudno (Cricket Ground)	SH(23) 776818	9.9	19.9	3.9
Madryn Castle (Farm Sch)	SH(23) 286362	22.6	18.8	2.4

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CAERNARVON (continued)				
Llandwrog (Glynllivon Pk.)	SH(23) 455551	24.7	19.5	2.5
Snowdon (Llydaw Intake)	SH(23) 636547	134	12.8	0.0
Snowdon (Grib Goch)	SH(23) 623550	159	8.5	0.0
ANGLESEY				
Llangadwaladr (Bodorgan)	SH(23) 389674	18.7	19.5	2.9
Llanerchymedd (Llwydiarth Esgob)	SH(23) 436843	20.2	19.3	2.8
Amlwch (Dyffryn Adda)	SH(23) 438913	18.0	19.3	3.1